

INTERNATIONAL SEARCH REPORT

International application No.
PCT/NZ2004/000184

CLASSIFICATION OF SUBJECT MATTER

Int. Cl. ⁷: A61 K 31/407; A61P 9/10, 9/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
DWPI and MEDLINE: Key words – Lolitrem, Lolitriol, Lolilline, Lolicine, Potassium, ion channel, antagonist, repolarisation, hyperpolarisation and related terms

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---|--------------------------|
| P, X | WO 2003/ 105868 A (MERCK & Co. INC) 24 December 2003. See pages 5, 7, 13 and claim 1 | 1-8, 10, 12-13, 16-34 |
| X | Miles C. et al. Large scale isolation of Lolitrem B and structure determination of Lolitrem E. J. Agric. Food Chem 1994, 42, pages 1488-1492 See abstract and Fig. 1 | 1-5, 7, 16-29, 33-34 |
| X | Munday-Finch S. et al. Isolation and structure elucidation of Lolitrem A, a tremorgenic mycotoxin from perennial ryegrass infected with Acremonium lolii. J. Agric. Food Chem. 1995, 43, pages 1283-1288 See abstract and Fig. 1 | 1-6, 16-26, 33-34 |

☒ Further documents are listed in the continuation of Box C

☒ See patent family annex

| | |
|---|--|
| * Special categories of cited documents: | |
| "A" document defining the general state of the art which is not considered to be of particular relevance | "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention |
| "E" earlier application or patent but published on or after the international filing date | "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone |
| "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) | "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |
| "O" document referring to an oral disclosure, use, exhibition or other means | "&" document member of the same patent family |
| "P" document published prior to the international filing date but later than the priority date claimed | |

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| Date of the actual completion of the international search 22 October 2004 | Date of mailing of the international search report 18 NOV 2004 |
| Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929 | Authorized officer S. Chew Telephone No : (02) 6283 2248 |

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C (Continuation).

DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|--|-----------------------|
| X | Munday-Finch S. et al. Isolation of Lolicine A, Lolicine B, Lolitriol, and Lolitrem N from <i>Lolium perenne</i> infected with <i>Neotyphodium lolii</i> and evidence for the natural occurrence of 31-Epilolitre N and 31-Epilolitre F. J. Agric. Food Chem. 1998, 46, pages 590-598 See abstract and Fig. 1 | 1-7, 12-13, 16-34 |
| X | Munday-Finch S. et al. Isolation and structure elucidation of Lolilline, a possible biosynthetic precursor of the Lolitre family of tremorgenic mycotoxins. J. Agric. Food Chem. 1997, 45, pages 199-204 See Figures 1 and 3 | 1-7, 10, 16-29, 33-34 |
| X | Derwent Abstract Accession No. 92-308267/38, Class B02, C02, D16, AU 9210402 A (NEW ZEALAND SEC FORESTRY) 30 July 1992. See abstract | 1-3, 7, 16-24 |
| X | Munday-Finch S. et al. Structure elucidation of Lolitre F, a naturally occurring stereoisomer of the tremorgenic mycotoxin Lolitre B, isolated from <i>Lolium perenne</i> infected with <i>Acremonium lolii</i> . J. Agric. Food Chem. 1996, 44, pages 2782-2788. See abstract, Figures 1 and 4 | 1-4, 16-32, 34 |

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/NZ2004/000184

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

| Patent Document Cited in Search Report | Patent Family Member |
|---|----------------------|
| WO 2003/105868 | NONE |

Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

END OF ANNEX